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THESIS

Panacea or Perestroika: A Socio-Economic Analysis of the Equity and Efficiency Effects of Choice in Education

by

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Panacea or Perestroika: A Socio-Economic Analysis of the Equity and Efficiency Effects of Choice in Education

by

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Submitted in partial fulfillment of the requirements for the degree of

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### **ABSTRACT**

This thesis looks at the equity and efficiency effects of Choice. Specifically studied is equalization effects in school finance and the "collective add-on" as proposed by John Chubb and Terry Moe in Politics, Markets, and America's Schools.

Analysed as a system, the educational sector is described as a process whereby the polity reproduces itself. Hence, the control of the sector by state, parental and social interests is considered as the system is set in motion under the Choice proposal. Operating under the principles of best and equal, or inequality and equality, the system expands until it reaches a point of diminishing marginal utility.

Because equity and efficiency are difficult to achieve synonomously, the question is raised regarding whether we are underinvesting in our children and whether a common commitment to democratic citizenship should lie at the heart of what education should be about.



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### I. PANACEA OR PERESTROIKA?

Among the school reform agendas suggested for the 1990s is Choice – a system of vouchers – where parents and children could shop for schools. In its purest form, as suggested in John Chubb and Terry Moe's book Politics, Markets and American Schools, parents would be able to choose from both private and public schools. The private schools would be allowed into the system of new schools "as long as their sectarian functions can be kept clearly separate from their educational functions" (Chubb and Moe, p. 219). Autonomy would be given to a school system at whatever level the community decided – district, school board, or school. Parents and children as consumers of education would drive the demand for education. Unwanted dysfunctional schools – bad products – would be driven from the market place.

Through this systemic change, contend Chubb and Moe, our schools will improve. "Broadly speaking, schools of choice tend to be more informal, professional, and unified around a common mission. ... Their teachers are more autonomous, more excited about their work, more influential in decision-making, and happier with their overall situations. Students are more satisfied with their chosen schools; dropout and absenteeism rates are down; achievement scores are up. Parents are better informed, more supportive and participate actively" (Chubb and Moe, p. 209).

Supporters of Choice say this is a perestroika for education (Bliss, pp. 154-168). Opponents say Choice "is not a panacea" for the problems of the education sector (Honig, pp. 15-16). The argument has drawn educators, economists, school bureaucrats, and all manner of educational do-gooders into the ring. Goal 2000 has

been promulgated by Lamar Alexander and President Bush, and Choice is on the agenda. (Shapiro, pp. 59-60)

This thesis will look at the equity and efficiency effects of the Choice finance plan as proposed in Politics, Markets, and America's Schools. What is good about the Choice proposal - Can equity be achieved? Is it more efficient? What are some of the negative impacts? Will Choice lead us back to segregation? Are there welfare losses? - and what can be done - if anything - to guard against the negative impacts. A micro economic approach has been taken to attempt to answer this question, but because the issue is one which is as much social and political as it is economic, the framework of the thesis is not limited to an economic analysis.

#### A. WHY A MICRO ECONOMIC APPROACH?

Douglas Windham, in an article for the International Institute for Education Planning's Seminar on Educational Planning and Social Change states,

One must study the complexity of education as it exists, while simultaneously developing a theoretical model of educational processes based upon the response of individuals to perceived incentives and information. This model should be designed to show how decision-making in education can be conducted in a manner that is both more rational in its conception and more realistic in its expectations.

(Weiler, pp. 107-121)

His thesis is based, in part, on the precept that

centrist planners ... never determine the actual outcomes of policy. They can only set in action forces which they anticipate ... The effects are the result of the millions of micro decisions made by individuals who are responding to the planner's policies in terms of 1) the actual pattern of rewards (positive or negative) which their decision matrix represents and 2) the perception of this pattern.

(Weiler, pp. 107-121)

From this thesis, other questions will arise: Is Choice a system that improves the concurrence of both public and private preferences? Will Choice – a system where consumers can exert their preferences and the market can respond to consumer demand – improve our nation's schools?

The bottom line is that Choice is neither panacea nor perestroika. There are good aspects to Choice and bad – or negative – side effects. That does not mean that Choice doesn't have its place in the varieties of reform. Choice, in fact, may provide the conduit, a lever, for much needed and innovative change, especially in releasing the schools from cumbersome forms of bureaucracy and regulation and empowering teachers, administrators and parents.

Chapter II, the conceptual framework, will describe the educational sector, for this will be the backdrop of the analysis of where Choice works and where it doesn't. Chapter III will provide an examination of the current literature regarding school finance issues. In Chapter IV, the education sector will be "set in motion" and analyzed to show the equity and efficiency effects of the school finance proposal. Conclusions, recommendations and further questions will be posed in Chapter V.

### II. THE EDUCATIONAL SECTOR

Our national system of schooling, originally developed to support an industrial economy, is not isolated from the host society that sponsors it.

The forms of the educational system, and the purposes to which it will be put, are reflective of the host polity – its unique political, economic, social, cultural, religious characteristics as well as historic antecedents. Presumably the polity fosters an educational system to reap certain social outcomes.

(Weiler, p. 17)

These outcomes include increases in productivity and income and appropriate career preparation, as well as correct social and political behavior, literacy and cultural attainments. These social outcomes provide feedback to the polity and ensure continuance of the host polity values, mores, etc. The polity generates the outlines of the educational process, providing resources in the form of budgets, facilities, personnel and materials, and monitors the activities of the process in the form of curriculum standards, compulsory age attendance, admission standards, student/teacher ratios, school organization and bureaucracy. (Weiler, p. 17)

This framework is shown in Figure 2.1 and will be the framework against which this thesis will analyze the effects of equalization and collective add-ons as proposed by Chubb and Moe.

### A. THE STAKEHOLDERS IN THE EDUCATIONAL SECTOR

The size of the system, its social control, the bureaucracy, regulations and financial arrangemen's can be discovered in the "structure of the interests whose presence makes the system arise in the first place" (Green, p. 19-29). These interests are inscribed in both the polity and external influences of the educational sector as

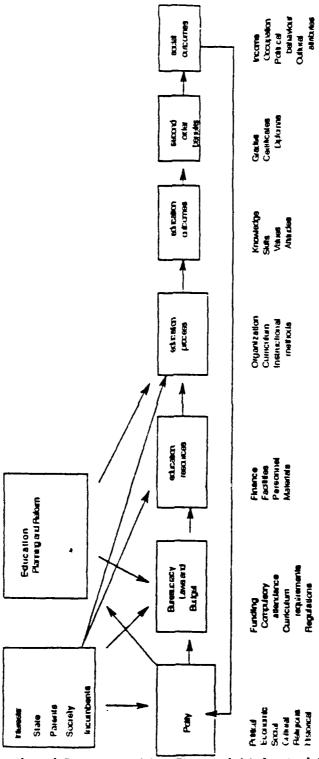


Figure 2.1: The Educational Sector and its Control (Adapted from Green and Weiler)

described in Figure 2.1. These interests can be broken down into four groups: the state, parents, society and incumbents.

First, there are the interests of the state (described as a "legal organization of society" to differentiate from society as described below). Basically, these interests consist of "two sorts, compelling and derived. The compelling interests can be summed up in two requirements – that 1) each individual attain economic independence, and 2) that each grant minimum obedience to civil law." The derived interests arise from the state's ability to secure its compelling interests. A state may have no interest in what is best for each child, but "has an interest in ensuring that children are not educated in ways that threaten the state's continued existence." Hence, in the model of the educational sector (Figure 2...), it can be seen that the political and social inputs of the polity are designed to ensure the educational and social outcomes of values, attitudes, political behavior and child rearing behavior, or the ability to derive income through an occupation – the attributes the state desires. These outcomes are expected to be equal for all children to a minimal degree (e.g., minimum curriculum requirements). (Green, pp. 22-24, Weiler, pp. 15-20)

Second, there are the interests of the parents. These interests would begin by being identical to the compelling interests of the state in substance. The difference is that the state's interests are minimal in the requirement for equality of educational opportunity for all. Parental interest, assuming it is **rational**, is maximal because it

aspires to the best that is possible ... seek[ing] not simply the best that is possible on the whole, but the best that is possible for their cwn children.

(Green, p. 25)

Looking at the educational sector, we see that the interests of the parents include those of the state. However, parents' interests are more specific, especially regarding values and educational outcomes to secure a certain type and level of occupation and income (e.g., grades, skills and certification to acquire a desired profession).

Third, there are the interests of society. Again, these are the same as the interests of the state, yet they extend beyond what is minimum. However, they are not maximum to the extent of the parents interest because the interests of society fall short of what is best for anyone in particular. They are

- 1. interests in those goods that benefit everyone even if their distribution is restricted to a few, and
- 2. interests in those goods that cannot be possessed by anyone unless they are secured for everyone.

Society has an interest in education as a god because education has positive externalities. Not only is education essential for society, it is essential for a good society.

Obviously, societal interests can be varied and enormous. However, they can be reduced to three "equalty specific, kindred, though different claims:" (Green, pp. 25-28)

- 1. Everyone benefits from the development of an educated elite whose skills and judgement contribute to the good conduct of government and preservation of an orderly society;
- 2. Everyone benefits from the expansion of skills and talents that contribute to the continued advancement and development of society; and
- 3. Everyone benefits from the widest possible distribution of certain minimal skills (reading, math, certain values like respect and certain attitudes such as punctuality).

Finally, there are the interests of the incumbents. Incumbents may be parents, members of society and agents of the state. Incumbents may include teachers and administrators whose interests may be as employees (they are paid), as professionals (they practice an art) and as technicians (they practice a craft or make something happen). (Green, p. 29)

### B. THE EQUITABLE DISTRIBUTION OF OUTCOMES

In Figure 2.1, educational outcomes are described as skills, knowledge, values, attitudes, grades and certificates. These can be further disaggregated in that knowledge, skills and values can be actual benefits derived from education while the grades, certificates, diplomas, transcripts, and licenses can be viewed as second-order benefits. These second-order benefits can be viewed as "exclusively instrumental" in that they provide the practical link between educational benefits and social benefits, specifically, the benefits of occupation and income. Second-order goods have a measurable amount of utility. They measure or indicate a level of achievement as one exits the educational sector (achievement being the level of mastery or knowledge acquired versus attainment, which means the last level achieved). The level of achievement provides a basis for entry into the labor force at a certain occupation level.

How should second order goods be distributed? State, parental and societal interests will guide distribution and are expressed in the terms of best and equal. As described above, the state will seek to attain some minimum level of competence for all, whereas rational parents will want the best. In the realm of best, there are some distinctions to be made. As we have seen above, the interest of parents best can be described as what is best is better than what everyone else receives. Ideally, if we were to want the best in education for our own children, we would want the

education that the rich can afford or what the gifted receive. Another distinction of best is that each person is entitled to receive the education that is best for him or her. (Green, pp. 110-115)

The equal principle means that each individual is entitled to receive an education at least as good as (equal to) that provided for others (Green, p. 114).

The interests of the society will be met by an equal distribution, except for those who are determined to be the "educated elite." For them, society will want to provide the best.

The educational system will distribute its benefits unequally and will do so no matter how the system is organized. ... The fact is that some people do well in the system and some do not do so well. In order for the system to be just and fair, it must distribute benefits based on educationally relevant attributes.

(Green, pp. 49-50)

These attributes are choice, courage and ability.

No inequality in the distribution of educational achievement can be regarded as unjust if it results from the exercise of choice, courage or ability. ... Race, sex and social class are never the result of choice ... are unrelated to the possession of courage ... and do not determine ability.

(Green, pp. 51-52)

### C. SUMMARY

Control of the educational sector is accomplished by the interaction of state, parental and societal interests. Parents will normally want what is best for their child, whereas the state will tend to try to equalize outcomes for all children. The society will attempt to achieve and sustain goodness by providing for those who do well, who display courage, choice and ability.

Planning and reform in education have become measured and determined by the political ordination of society - the vision of the society's future by those in power. If the school system is the process for reproducing polity, and its functions and outcomes correspond with the society as a whole, then it is apparent that the process itself cannot reduce the inequalities of society. Our society does not judge purely on the relevant attributes described as to who will receive more or better educational resources. Schools cannot be expected to win The War on Poverty, to defeat drugs, racism and sexism, when the school is but a microcosm of a society with those factors imbued in its cultural fabric.

# III. SCHOOL FINANCE UNDER CHOICE: A BALANCE BETWEEN EFFICIENCY AND EQUITY?

The scheme for financing schools suggested in Politics, Markets, and America's Schools is an equalization scheme "that requires wealthier districts to contribute more per child than poor districts and that guarantees students in all districts an adequate financial foundation." However, communities can vote for collective addons if they want to "spend more per child than the state requires them to spend" (Chubb and Moe, p. 220). Currently, school finance reform is being challenged in approximately twenty states who operate "two separate but unequal public education systems – those for the rich and those for the poor" (Kozol, p. 42).

The following chapter examines the effects of equalization and the collective add-ons as proposed in John Chubb and Terry Moe's book. This examination will be conducted against the conceptual framework of the educational sector, as described in Chapter II. It will be seen that, because of the nature of the educational sector – it lies deeply embedded in our social and democratic system – Choice is not the quantum leap for education or education policy as some had hoped. It is, however, a lever to incrementally change the system. If used wisely, it could induce its movement upward to accommodate the increasing numbers of children at risk, perhaps improving social mobility for a greater majority than presently is the case.

# A. THE ISSUE OF FINANCIAL EQUITY: AN EXAMINATION OF CURRENT LITERATURE

A central inequity inherent in public schools is that a child's social class influences the quality of schooling he will receive. Many states attempted to improve the equity within their school districts in the 1970s and 1980s by equalizing local tax bases of school districts in order to promote more equal expenditures per pupil. Because of wide spending gaps between rich and poor communities and the challenges of the school reform movement to

extend to all students the intellectual training usually reserved for the privileged and gifted.

reform involving financial equity, termed equalization, was set in motion in several states (Toch, p. 16).

The underlying premise for equalizing school expenditures is that equality of educational opportunity is more achievable when the definition seeks to attain equality among schools rather than pupils.

An educational system is equitable when a level of educational achievement is attained by a child independent of the school he attends.

(McCarty, p. 253)

However, in a 1990 study titled On Equalizing School Expenditures, a detailed investigation of a small number of these reform states found that

... the school finance reform movement promoted greater tax equity and somewhat diminished the strong relationship between district wealth and spending, but accomplished very little in terms of equalizing the vast disparities in perpupil expenditures that existed prior to reform ... reform in school finance to achieve equity has been 'much ado about nothing'.

(Geske, pp. 55-57)

Why is this? The problem can be seen in the attempts to deal with the equalization plans as proposed in California during the 1970s.

In 1971, as a result of a school-finance ruling, California equalized expenditures across school districts. However, some districts get around the social costs of equalization through the use of parcel taxes.

Parents who live in districts with parcel taxes say they are just trying to get kids out from under the lowest-common-denominator funding allocated by the financially strapped state government.

(Walsh, pp. A1-A16)

This is allowable, in fact encouraged, under a Choice system.

Complete equalization ... strikes us as too stifling ... The citizens of each district can be given the freedom to decide whether they want to spend more per child than the state requires them to spend. They can determine how important education is to them and how much they are willing to tax themselves for it.

(Chubb and Moe, p. 220)

According to Kozol, the parcel tax is the main reason that there are enormous disparities between inner-city and suburban schools.

This is exacerbated by the fact that there may be unequal demand for education from school district to school district. Since the demand for education varies widely between districts, any imposed uniform level or expenditures will involve welfare losses, especially for the richer communities. What influences a consumer's ability to receive a desired amount of education is the consumer's ability to locate to a certain school district. The more income people have, the more mobility they have. Income can free them to relocate to a district that can provide the type and amount of education they desire. If they are forced to consume less (which may be equal to what everyone else has), and are still paying a higher tax rate, they are

experiencing a welfare loss. Conversely, the poor district, able to consume more than they previously could, will also experience the effects of the income transfer, which may be a welfare loss or gain.

To exert influence on local demand for education, the most effective state policy that could be adopted is a progressive income tax. (In order to redistribute income and wealth, a higher income tax rate is imposed on the wealthy. A progressive tax can also be seen as a means to reduce the private spending power of the wealthy: by paying higher taxes, their spending ability is reduced. (Bronfenbrenner, p. 397; Kozol, p. 42, McCarty, p. 260)) By raising or lowering a district's tax rate, states may induce districts to spend more or less than they otherwise would. The bottom line is, if a state imposes a progressive tax, the more equality it can achieve; however, the efficiency losses become larger.

It seems a fair presumption that more equal expenditures would bring equal education opportunity closer to realization than it is now ...: inducing some districts to spend more and some less necessarily entails social costs that rise with the dimensions of the inducements.

(McCarty, pp. 253-254)

## IV. DEPARTURES AND ANALYSIS – EXPANSION OF THE SYSTEM?

With collective add-ons, as proposed by Choice, communities may buy more education by paying an additional price or tax. This could be exemplified by a family who would want to buy more and expensive private day care for their preschool child. The parents with a higher budget could make up for the welfare losses imposed by an equalization plan and continue to provide what is best for their child. The parents with a constrained budget would be receiving what everyone else receives.

Obviously, this proposal does not resolve the inequalities of educational opportunity, if the ability to vote collective add-ons are part of the package.

This analysis can be taken further, assuming there are parents who also want to provide what is best for their child. Eventually, it can be assumed they will want to have the education similar to the communities able to vote for a collective add-on. If this represented a large enough population, what was once equal to all will later tend to be viewed as an unequal amount. They will seek a new equilibrium by increasing their opportunity costs (e.g., move to another district, travel further), by seeking a change in income distribution (an increased voucher amount or tax reform) or regulation (the state's interests must expand to provide the same to all). Hence, the system levels up to a new point of equilibrium. Again, the system is at the point of inefficiency, though there will be greater equality.

It could also be assumed that this condition will not be maintained because societal interests will take over. Because society benefits from the development of an education elite and the expansion of skills, again the educational sector will be forced to provide more education for some.

Using the principles of best and equal, the system expands in a sense. When the state satisfies its interests of the same to all, parents will expand that amount based on what is the best for their own children. The expansion of the system is supported by the requirements of society to provide more to some in order to ensure its goodness.

If this analysis is in fact valid, then one could say that there is a natural tension and balance between equality of educational opportunity and access to education (equity) and efficiency. The educational sector seems to expand and contract between those two requirements, depending upon the desires of the polity, the interests of the state, parents and society. What is striking is that perhaps this is a natural movement. We will never have one over the other – equality over efficiency or vice versa – in this democratic society, and maybe we should not concern ourselves solely, then, on this issue.

#### A. CAN THE SYSTEM EXPAND UPWARD?

If the system is set in motion, it is expected that there would be a uniform growth rate. However, decreasing marginal utility to society would eventually be expected to take over the system. (Green, p. 91) In other words, the growth of the educational system is dependent on the relationship between attainment and the distribution of courage, choice and ability and/or the desired distribution of socio-economic outcomes. The system will grow only if there is a corresponding growth in the requirements of society for increased attainment.

If attainment is measured by receipt of a second-order benefit, such as a certificate or diploma, and each successive generation were able to obtain more and higher second order goods, then the social value of the benefits would increase. Eventually, however, this value would decline. Consider the value of a high school education.

If relatively few people had this diploma (as was the case prior to the 1900s), it is unlikely it would be a prerequisite for job entry for the majority of jobs available. As the amount of people who have this diploma increases, so does the utility of having the certificate. Employers will use them as screening devices to qualify applicants for jobs. People who have the diploma probably possess certain desirable attitudes and values and have attained a certain measurable amount of knowledge, skill or learning ability. If everyone has one, the social value will decline and approach zero. The degree can no longer be used as a screening device; the attributes desired by an employer can no longer be discerned by using the high school diploma as a measure. Therefore, the diploma becomes meaningless as a measure for job entry, and new screening devices, higher attainment levels, or more specifically described skills, must be found.

Recent studies have addressed the question of whether the U.S. educational system is producing more college graduates than are socially useful.

As long as education is seen as a means of achieving social mobility, the interest and the incentive to obtain more education will continue. As long as those with more schooling fare better in the labor market than those with less schooling, overeducation will continue to exist.

(Rumberger, pp. 4, 127)

Although Rumberger's study is mostly directed at the effects of higher education on the labor market, the fact that attainment at this level is preceded by attainments at the primary and secondary level is obvious.

The measures used by the National Center for Education Statistics to determine the efficacy of the education sector are high school attainment and conferment of higher degrees. The numbers of high school graduates have increased from 16.8% (of the population of all 17-year olds) in 1919 to over 73% in 1987. In 1982, the number of first degrees (bachelor degrees) awarded per million of population was

4100, the highest when compared to Japan, West Germany, the UK, and Australia. However, the average annual rate of growth in real Gross Domestic Product (a measure of output/productivity per person employed) was the lowest at 1.2 percent per year. (Maglen, p. 285; NCES, p. 108)

What happens when you consider the 995,900 of the population that did not receive a bachelor degree? Is it this sector that drives down productivity? Maybe the number indicates it doesn't help to make more college graduates. Maybe it means we need to direct our attention not to attainment levels, but to other factors and outcomes.

These become larger questions that need to be asked of those who seem to attribute our economic decline and loss of global competitiveness to a malaise in the education sector.

The bottom line is – the principles of **best** and **equal** will continue to expand the system to a point where the marginal utility of receiving extra amounts of education finally diminishes. One might wonder if, prior to achieving that point, society should somehow limit the number of entrants into the system, vice risking expansion and the accompanying diminishing marginal returns?

### B. SUMMARY

Many say that increased dollars do little to improve a child's chances for success.

Putting more money into poor districts ... won't change anything ... Money is not the answer ... It has to begin in the home. The Wall Street Journal applauds the thousands ... who have jammed the streets ... in protest of the [equalization] plan. Phone calls aired on several radio stations voice a raw contempt for the capacities of urban children ... but predict the imminent demise of education in the richer districts if their funding is cut back. Money, the message seems to indicate, is absolutely crucial to rich districts but will be of little difference to the poor.

(Kozol, p. 44)

Choice is not the quantum leap for school reform as some had hoped, especially in the area of school finance reform. In all actuality, with the collective add-on, the disparities between rich and poor are legitimized under a liberal cloud of democratic choice.

The good side, however, and the point many make is, with Choice, we may not be just throwing more money at the system. With Choice the dollars schools receive are backed by a commitment from the parents and the community.

# V. WHERE ARE WE NOW? – SOME FINAL THOUGHTS

One has to ask - Where is our educational sector in this shifting paradigm and what are the policy implications?

In order to answer this question, one must look to the polity inputs and social outcomes the polity expects to perpetuate through the educational process. First, one needs to look at the changing demographics within the society. What manner of students does the process need to serve, from what socio-economic backgrounds? Second, one needs to describe the measures of attainment and achievement desired and the distribution of educational and second- order benefits that will be meaningful to the desired social outcomes.

In answer to the first question, A make an society is extremely diverse and changing. From 1976 to 19°6, the proportion of White enrollments in public schools decreased by 13%, whereas the proportion of Hispanic and Asian enrollments increased 44% and 116%, respectively. Although Black and Native American enrollments have remained fairly constant, the poverty level among these groups has grown as well as the poverty level for all groups – including white – whether in rural or urban environments. The number of special education students, including mentally retarded and learning disabled, rose from 8% in 1977 to 11% in 1988. In 1987, among the teachers' perceptions of the major causes of student difficulties were 1) children left on their own after school; 2) poverty in the student's home; 3) single-parent families; and 4) families in which both parents work full time. These

statistics are taken in order for the educational sector to assess what the changing needs of the polity are and how it will respond to the challenges of the future. (NCES, pp. 55-56, 67)

What about the second question? What are the outcomes we desire? One answer would be the requirements of business and industry for labor. What kinds of skills are needed? What kinds of values can the system inculcate to ensure labor has a positive work ethic?

There are problems in attaching the outcomes of education to the needs of corporate America. First, it is not necessarily true that education contributes directly to the productivity of a firm or can be correlated directly to growth in GNP, as stated previously. Other factors, such as motivation and job satisfaction, as well as how the industry manages its other resources, impact productivity as well. Second, "the motivations of corporations are complex." The purpose of schools, if they were in the hands of the corporations, would be to meet the challenge of competition from the Japanese. (Deyoung, 1990; Maglen, 1930)

Most labor force analysts will agree that the trend will be for more service-oriented workers who have technological skills and who are flexible, adaptable, and mobile. People should expect to, and be able to, move from job to job, apply existing and new technology, and be able to "think on their feet". (Henderson and Mowery, 1988; Van Horn, 1990) Standardized testing does not provide an assessment for these abilities. In fact, the current move to emphasize skill attainment (math, reading, science) only tests a student's ability to restate rotely learned facts and apply procedures to problem solving in a limited context. This has nothing to do with the requirements of flexibility or adaptability in a changing world economy.

More importantly, however, while standardized exams may allow for international comparisons and certification, which indicate skill level for job entry, this limited approach does not provide information on whether children "are prepared for the responsibilities of democratic citizenship" (Wray, p. 771). Considering that "George Bush was elected by 27 percent of the eligible electorate" and the "U.S. is now ... last among democracies of the world in proportion of eligible voters who take part in national elections," this concern is of primary importance. Consider, too, that those who are not voting are largely the lower levels of our "social pyramid – the poor, minorities, and younger people" (Dolbeare, p. 144).

Let me frame the question in a different fashion: what are the interests of the other stakeholders – the state, parents and society? The state has both economic and civil interests. The state is interested in providing education because it is cheaper than having children end up on welfare or in prison. Parents neither want their children in prison or on welfare, nor do they want less than anyone else is getting. In fact – if they are truly rational – they will want more if they can get it. Society wants the same things as the state, but also wants to provide additional benefits for those who will carry on the tasks of ensuring we have a good society. The answer to this question, posed this way, then, is that the outcomes we want will be diverse, and we want them to be diverse to ensure a good society; but we want the outcomes to be the same regarding the inculcation of a degree of economic independence and participation in the processes of democracy.

### A. WHAT NEEDS TO BE DONE

First, and most importantly, we need to ask whether we are underinvesting in our children. There is sufficient evidence to indicate that this is the case. Whereas Americans tend to invest more in higher education, Europeans tend to support preschoolers to a greater degree (Fuchs, p. 17). A consideration in this approach is that public subsidies of higher education might tend to further the divergence

between lower and higher income families, given that more economically advantaged families will be sending their children to college. The support of preschoolers could be viewed as more equal, especially if this investment were to be made in the form of Head Start or Chapter I entitlements.

Head Start currently serves only one in every five eligible children. Although one of Bush's budget proposals increased Head Start funding by \$100 million, full funding for all eligible three- and four-year-olds, and 30% of eligible five-year-olds, is expected to amount to \$7.6 billion by 1994. (Thompson, p. 132, Agenda, p. 10)

The system of education appears to be larger than the sector traditionally described. Children are highly dependent on the income of their parents. Similarly, their attainments and achievements are closely linked to the socio-economic backgrounds and education level of their parents (Brempong, 1991; Fuchs, 1991; Mayeske, 1972). Education is a part of our social welfare and therefore, should include the health and welfare of families, of children before they are born. The incidence of children born to poverty is increasing and this condition is worsened when compounded by the fact that more children are being born to parents who abuse drugs and alcohol. The increased incidences of child abuse, child murders (by other children), and child suicide all indicate that there is something seriously wrong in the communities of children. In order to take care of the children, it is imperative that someone take care of their environments.

Our most recent priorities as a nation can be shown in looking at appropriations of the federal budget for 1989. Domestic Functions (totalling \$144.1 billion) received approximately 31% of the total appropriations (\$462.3 billion). Of that 31%, education, training, employment and social services received 18%, or 5.6% of the total amount appropriated. If Health is added (\$14.3 billion), the appropriations

we could call investments from the federal government in the health and welfare of children and families is 8.7% of the total 1989 appropriations. (Schick, p. 108)

This dim view of effective appropriations for the welfare of children is exacerbated when you consider that the economic well-being of children decreases with the number of children in a household.

The problem of underinvestment in disadvantaged children has probably grown worse in the past decade, largely because of the widening inequality of income and reluctance of households without children to make transfers (via the tax system) to households with children.

(Fuchs, p. 20)

Not only are we not investing enough in children in a monetary sense, our children are also deprived of time with parents, grandparents and other adult role models. Single- headed households, dual-income parents and mobility of the aged are the main causes of these growing social problems.

### B. WHAT CAN BE DONE

The primary research questions was – What are the efficiency and equity effects of Choice as proposed in Politics, Markets, and America's Schools. The issue of Choice has drawn heated debates, and that is good. It is only through conflict that we can see the issues clearly and then hope to resolve them. No one can approach the issue of education without it becoming a personal issue. It is an emotional issue because at the heart of it lies our very values, our fondness for what was, and a vision of how it could be better for our children.

Under a system of Choice, as proposed by Chubb and Moe, it is doubtful that the disparities between rich and poor will significantly be reduced, or that equity gains will be measurable and defensible. To gain a closer realization of equity, perhaps a form of progressive tax will have to be adopted.

After we have looked at any reform issue, we are left with a final question that only political and social consensus can answer. What do we really want of our schools, and what should education be about? I propose that, to begin with, education should be about citizenship, contributing to society and enhancing our ability to confront and adapt to future challenges.

When we seek to answer those questions more fully, we must remember that our children are a public good in and of themselves. The future of the next generation is at stake in them. How we shape the world for them today will define how it will look in their future. As Alfred North Whitehead wrote in 1929:

When one considers in its length and in its breadth the importance of this question of the education of the nation's young, the broken lives, the defeated hopes, the national failures, which result from the frivolous inertia with which it is treated, it is difficult to restrain oneself from savage rage. In the conditions of modern life the rule is absolute, the race which does not value trained intelligence is doomed. Not all your heroism, not all your social charm, not all your wit, not all your victories on land or at sea, can move back the finger of fate. To-day we maintain ourselves.

To-morrow science will be moved from the judgement which will then be pronounced on the uneducated.

We can be content with no less than the old summary of educational ideal which has been current at any time from the dawn of our civilisation. The essence of education is that it be religious.

Pray, what is religious education?

A religious education is an education which inculcates duty and reverence. Duty arises from our potential control over the course of events. Where attainable knowledge could have changed the issue, ignorance has been the guilt of vice. And the foundation of reverence is this perception, that the present holds within itself the complete sum of existence, backwards and forwards, that whole amplitude of time, which is eternity.

### LIST OF REFERENCES

- 1. Agenda, Volume 1. New York: Scholastic, Inc., Spring 1991.
- 2. Bliss, James, R., Firestone, William A., and Richards, Craig E. (eds.), Rethinking Effective Schools: Research and Practice. New Jersey: Prentice Hall, 1991.
- 3. Brempong, Kwabena and Gyapong, Anthony O., "Characteristics of Education Production Functions: An Application of Canonical Regression Analysis," *Economics in Education Review*, Vol. 10., No. 1, pp. 7-17, Great Britain, Pergamon Press, 1991.
- 4. Brofenbrenner, and others, *Microeconomics*, Third Edition, Boston, Houghton Mifflin Company, 1990.
- 5. Chubb, John E., and Moe, Terry M., Politics, Markets, and America's Schools, The Brookings Institution, 1990.
- 6. Dolbeare, Kenneth M., "The Decay of Liberal Democracy," *Policy Studies Review*, Vol. 10, No. 1, Fall 1990.
- 7. Deyoung, Alan J., Economics and American Education: A Historical and Critical Overview of the Impact of Economic Theories on Schooling in the United States, New York, Longman, Inc., 1989.
- 8. Fuchs, Victor R., "Are Americans Underinvesting in their Children?", Social Science and Modern Society, Vol. 28, No. 6, Sep/Oct 1991.
- 9. Geske, Terry G. and LaCost, Barbara Y., "The Student Equity Effects of the Public School Finance System in Louisiana", Economics of Education Review, Pergamon Press, 1990, pp. 55-65.
- 10. Green, Thomas F., Predicting the Behavior of the Educational System, New York, Syracuse University Press, 1980.
- 11. Guthrie, James W. and Wynne, Edward (eds.), New Models for American Education, New Jersey, Prentice-Hall, 1971.
- 12. Henderson, Bruce E. and Mowery, David C. (eds.), The Future of Technology and Work, Washington D.C., National Academy Press, 1988.
- 13. Honig, Bill, "Why Privatizing Education is a Bad Idea," The Brookings Review, Winter 1990/91, pp. 15-16.
- 14. Kozol, Jonathan, "Season of Darkness," Teacher, Vol. III, Issue 2, Washington, Editorial Projects in Education, October 1991.

- 15. Maglen, L. R., "Challenging the Human Capital Orthodoxy: The Education-Productivity Link Re-examined," The Economic Record, December 1990.
- 16. Mayeske, George, et al., A Study of Our Nation's Schools, U.S. Government Printing Office, 1972.
- 17. McCarty, Theres A. and Brazer, Harvey E., "On Equalizing School Expenditures," *Economics of Education Review*, Vol. 9, No. 3, Great Britain, Pergamon Press, 1990, pp. 251-264.
- 18. National Center for Educational Statistics, 1989 Education Indicators, U.S. Department of Education, Office of Research and Improvement, NCES 89-653.
- 19. Rumberger, Russel W., Overeducation in the U.S. Labor Market, New York, Praeger Publishers, 1981.
- 20. Schick, Allen, The Capacity to Budget, Washington D.C., The Urban Institute Press, 1990.
- 21. Shapiro, Walter, "Tough Choice," Time, Vol. 138, No. 11, Time Inc. Magazine Co., September 16, 1991.
- 22. Toch, Thomas, "Separate But Not Equal," Agenda, Vol. 1, New York, Scholastic, Inc., Spring 1991.
- 23. Thompson, Kenneth W. (ed.), The Presidency and Education, Volume I, Maryland, University Press of America, Inc., 1990.
- 24. U.S. Department of Education, Progress of Education in the United States of America 1984 through 1989, U.S. Department of Education, 1990.
- 25. Van Horn, Carl E., Ryan, Ken, and Tracy, William, Workforce Structures: Strategic Planning in the States, Research Report No. 89-06, Washington D.C., The National Commission for Employment Policy, February 1990.
- 26. Walsh, Diana, "Some Districts Use Tax Loophole to Aid Schools," San Francisco Examiner, August 11, 1991, pp. B1, B16.
- 27. Weiler, Hans N. (ed.), Educational Planning and Social Change, Paris, UN-ESCO, 1980.
- 28. Wray, Harry J., "Schools and Politics, A Review Essay," Western Political Science Quarterly, Vol. 44, No. 3, University of Utah, September 1991.

### **BIBLIOGRAPHY**

- 1. Bryson, John M., Strategic Planning for Public and NonProfit Organizations, San Francisco, California, Josey-Bass, Inc., 1988.
- 2. Carr, Robert W., "Markets Can't Fix Schools' Problems," Wall Street Journal, 2 May 1991, p. A15.
- 3. Chubb, John E. and Hanushek, Eric A., Reforming Educational Reform. Setting National Priorities Policy for the Nineties, Henry J. Aaron (ed.), Washington D.C., The Brookings Institution, 1990.
- 4. Chubb, John E. and Moe, Terry M., "Choice is a Panacea," The Brookings Review, Summer 1990.
- 5. Cohn, Elchanan, Input-Output Analysis in Public Education, Massachusetts, Ballinger Publishing Co., 1975.
- 6. Comer, James P., "Educating Poor Minority Children," Scientific American, November 1988, p. 259.
- 7. Coombs, Phillip H. and Hallak, Jacques, Cost Analysis in Education, The World Bank, 1987.
- 8. Crane, Jane L., Teacher Demand: A Sociodemographic Phenomenon, National Center for Education Statistics, 1982.
- 9. Elmore, Richard F., Choice in Public Education, The RAND Corporation, Center for Policy Research in Education, December 1986.
- 10. Feiler, Bruce, "The Hot-Blooded, Warm-Hearted Teacher," Teacher, Vol. III, Issue 1, Washington, Editorial Projects in Education, September 1991.
- 11. Flores, Diane, "Special Education Needs More Teachers," Monterey Herald, Sunday, July 21, 1991, p. 4A.
- 12. Fox, Karl A. (ed.), Economic Analysis for Education Planning: Resource Allocation in Nonmarket Systems, Maryland, John Hopkins University Press, 1972.
- 13. Freidman, Milton, Capitalism and Freedom, University of Chicago Press, 1963.
- 14. Fuhr, Don L., Choices, Public Education for the 21st Century, Maryland, University Press of America, 1990.

- 15. Glazer, Nathan, et al., "In Search of Excellence and Equity in Our Nation's Schools," Harvard Education Review, No. 57, May 1987.
- 16. Guthrie, James W. and Wynne, Edward (eds.), New Models for American Education, New Jersey, Prentice-Hall, 1971.
- 17. Johnstone, James N., Indicators of Education Systems, London, UNESCO, 1980.
- 18. Joint Task Force on Education for Economic Growth, Action for Excellence: A Comprehensive Plan to Improve Our Nation's Schools, Denver, Colorado, Education Commission for the States, 1983.
- 19. Koepke, Mary, "Going, Going ...," Teacher, Vol. II, Issue 8, Washington, Editorial Projects in Education, May/June 1991.
- 20. Leiberman, Myron, Privatization and Educational Choice, New York, St. Martin's Press, 1989.
- 21. Marcus, Laurence R. and Stickney, Benjamin D. (eds.), Politics and Policy in the Age of Education, Illinois, Charles C. Thomas, 1990.
- 22. Meade, Jeff, "Keeping the Faith," Teacher, Vol. III, Issue 1, Washington, Editorial Projects in Education, September 1991.
- 23. National Commission on Excellence in Education, A Nation at Risk: The Imperative for Educational Reform, Washington D.C., U.S. Government Printing Office, 1983.
- 24. Pauly, Edward, The Classroom Crucible: What Really Works and What Really Doesn't, New York, Basic, 1991.
- 25. Rhoads, Steven E., the Economist's View of the World, Cambridge University Press, 1985.
- 26. Saranson, Seymour B., The Culture of the School and the Problem of Change, 2nd ed., Massachusetts: Allyn and Bacon, Inc., 1982.
- 27. Shea, Christine M., Kahane, E., and Sola, P. (eds.), The New Servants of Power: A Critique of the 1980s School Reform Movement, Greenwood Press, 1989.
- 28. Sprout, Alison, "Do U.S. Schools Make the Grade?," Fortune, Education, 1990, pp. 50-51.
- 29. Van Scotter, Richard D., and others, Social Foundations of Education, 2nd ed., New Jersey, Prentice-Hall, 1985.
- 30. West's Annotated California Codes: Education Section, West Publishing Company, 1978.

31. Wildavsky, Ben, "Hero of Choice," The New Republic, 22 October 1990, pp. 14-18.

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